

The Development of a Classified Catalog for a University Library^{*}

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THE CHENERY Library is the central unit of the Boston University Library system. It serves the College of Liberal Arts and the Graduate School primarily but is used regularly by students from the other six colleges on the campus and by some off-campus groups.

The subject catalog for this collection is a classified catalog based upon the Library of Congress system. Although catalogs in classified form are historically ancient and exist today in a few special libraries or for some special collections, it is believed that the Chenery Library is unique among university libraries in this country in using this medium as the only subject catalog approach to its central collection. It also serves, to a limited extent, as a union subject catalog since six separate college collections and one bureau library are being cataloged in the central unit. These holdings have, or will have, principal entries in the classified catalog. (There is no union subject representation at present for the nine other college libraries in the system.)

Although no other university may at this

time wish to follow Boston's experiment for its total collection, there may be institutions that would wish to consider a classified catalog for a part of their collections. For these latter and for all interested in media of subject analysis this resumé of the working program for a classified catalog is prepared.

This catalog was begun in September, 1948 coincident with the start of a recataloging project designed to cover the central library and several of the other college collections. At that time it was decided to use the LC classification system where total recataloging seemed needed. Certain units were in good condition and there was no justification for reclassifying those colleges at that time but procedures were established whereby they could be included in the union subject catalog. These will be discussed later in this paper.

Inasmuch as there is no relative index to the LC classification, it was necessary to establish one. The terms used in this index come from three sources. The first, in point of choice, is always a heading from the LC subject heading list. The assignment of subdivisions is more flexible. In addition to using those provided in the official list, terms are selected from the schedule tables and from their separate indexes. The references that correspond to *see* references in a dictionary catalog are chosen from the Subject Heading list or from current usage.

With a classification as detailed as the LC it is possible to prepare a subject index

^{*} Miss Herrick's thoughtful and expert paper should answer many questions which have been asked concerning the classified catalog at Boston University. Admittedly the decision to inaugurate the venture, made by Mr. Floyd E. Orton when he was director, was a bold one. Not all of the problems which have been encountered were foreseen and it is a tribute to the ingenuity of Miss Herrick, who has been in charge of the project from the beginning, that they have been so successfully solved. The procedures necessary to create such a catalog have been, I feel sure, successfully established. The problem of the effective use of any catalog is one in which the college library's role as a teaching instrument must be continuously stressed.—Robert E. Moody, director, Boston University Libraries.

that is more of a precision tool than is possible with the alphabetical subject catalog. Granting that this precision of approach is desired, the various aspects of a subject can be separately presented in such a way that automatically those which may have no immediate value in a particular problem are excluded from a search. For example, "Naturalism in literature" is a phrase subject heading separated alphabetically from its parent heading, "Naturalism." In a dictionary catalog it is used to cover both general works in PN56.R3 and the same topic in separate national literatures. The classified catalog subject reference can read:

Naturalism
 B 828.2
 Literature (use in) PN56.R3
 French PQ295.N2

Likewise a topic that appears in more than one field may be presented with its distinctions in one reference:

Ions
 Chemistry QD547
 Physics QC702-721

In a classified catalog the *see* reference is a direct reference to an entry such as Polar regions G600-830 instead of Polar regions *see* Arctic regions; Seismography QE531-541 instead of Seismography *see* Earthquakes, etc. If the *see* reference term has multiple possibilities of number references the following type of card is set up:

Spanish America
 F1401-1418

For specific aspects of this subject consult the subject reference in this Catalog under *Latin America*.

Criminology
 HV6001-9920
 Treatises HV6025

For specific aspects of this subject consult the subject reference in this Catalog under *Crime and criminals*.

It may be observed that in such cases the basic or more important number range is given, providing, as with a simple *see* reference, a direct guide for the user.

The subject index and its accompanying authority file are in card form. At present the subject index is interfiled in the main catalog. This serves to permit broader access to the subject headings than if they were consolidated in a separate file with a thousand or more in one drawer. Actually the first decision to use only a two-part catalog was made with the thought in mind that the change-over from a dictionary catalog should be as simple as possible. To confront the students and faculty with a new classification, a new catalog in an unfamiliar form, and three separate files of cards, would, it was believed, arouse such adverse reaction that no fair trial could be obtained for the classified catalog. If, upon the completion of the reclassification the subject index is published by photostatic reproduction, as is planned, there can then be provided a portable index to the collection. Although this index will always be in process of growth, and it is expected that the first publication of it will be followed by revisions, the printed copy will still provide major access to the collection. It is obvious also that the publication of this index might offer for the first time a relative index to the LC classification that could be used by other libraries. To date there are approximately 18,000 cards in the two index files, and these cards vary from those with one direct number reference or with a reference to a small range of numbers to entries that run to several cards and have multiple subdivision references. The longest reference now is for the United States and covers twenty-four cards and contains 172 subdivisions. These represent almost all the major subdivisions that will be used, but the chronological sub-

divisions under "History" are excluded. These latter are put onto guide cards and the authority card to the U. S. entries records these in red to distinguish them from regularly represented headings or sub-headings. Only spot editing has been done on the subject index. It is expected that some entries will be reduced by withdrawing subdivisions or moving them onto guide cards. In general, under some topics that would usually be consulted only by advanced students, and where the possible number range is not in itself very large (such as Indo-Iranian philology), fewer subdivisions have been used than under topics of wider scope and interest. At present if a subject reference card runs to a second or third card, it usually represents an area that covers considerable space in the catalog. Therefore, this is still a more rapid approach to the whole field than searching the many subdivisions in a dictionary catalog.

The subject references are set up in straight alphabetical word by word arrangement to prevent any confusion in locating headings composed of more than one word, or those with commas, dashes or prepositions. For example, a reference card reads as follows:

<i>Boston University Card</i>	<i>Dictionary Catalog Form of Heading</i>
Chemistry	Chemistry
Addresses, essays, lectures, etc. QD39	Chemistry—address- es, essays, lectures.
Analytic QD71-142	Chemistry—Analytic
Apparatus QD53- 54	Chemical apparatus
Elements QD466- 467	Chemical elements

Although the last two entries above appear on the chemistry reference card in a variant of the official form they will also appear in the index in the LC form, being,

in effect, *see* references in the University's index.

There is one other form of reference that has required a local decision and that is for a criticism of a work that is not provided with a separate number in the LC classification. A critical study of *Jude the Obscure*, for example, presents no problems for the classified catalog as Table XI in the PN-PS schedules can be applied. A study of Keynes' "Economic Consequences of the Peace" by Etienne Mantoux, however, requires a local decision as the LC number HC57 cannot be used as a direct reference to this criticism as it also applies to the Reconstruction Period 1919/39 as a whole. For this, the following form reference is provided:

Keynes, John Maynard, 1883—ECONOMIC
CONSEQUENCES OF THE PEACE

For material on this subject consult the
Classified Catalog HC57.F46¹ Mantoux,
Etienne.

If a second criticism is received a second call number is added to the card. This is one instance when the index may appear to be somewhat cumbersome to a user.

There is a considerable amount of re-typing of reference cards as the reclassified materials join new books already in a subject area. Twelve hours of typing and two hours of revision are required each week to keep the additions to the index up to date. This work is done by a student typist and revised by a junior cataloger. The typing cost is from sixty-five to seventy-five cents per hour and the revision cost is from one dollar to one dollar and twenty-five cents per hour.

When this experiment was started the administrator of the project stated that professional cataloging costs would be considerably higher than for a traditional re-

¹ The Library uses Biscoe time numbers in place of Cutter Author numbers.

cataloging program. In general this has held true. Making the necessary relative index with its attendant difficulties of reconciliation and delimitation of class numbers with subject terminology requires more time than preparing an alphabetical subject authority file from LC headings. The assignment of class numbers to represent each added entry takes, of course, more time and discriminating judgment than checking a printed heading. In those cases where LC cards are not available the time of subject cataloging is doubled by the necessity of establishing the subject headings and then assigning the class numbers for each. Considerable experience with the LC system is required to assure accurate interpretation of it. Although the neophyte in library school is told that a subject heading and a classification number are not necessarily synonymous it is true that the latitude of variation is narrower in a classified catalog. Therefore, each classification number used must be related to some subject heading or to some aspect of that heading and that indication must appear on the subject reference card. Fortunately, from the viewpoint of progress, the major part of the collection has been covered by LC cards, although about 150 titles per month require local classification. Both new and reclassified books that are covered by LC card entries have classification numbers assigned by the catalogers without close checking (but with certain omissions, such as the use of form numbers in the H and J classes). The catalogers also classify new books without the LC entries and they are responsible for the accuracy of all descriptive catalog information.² The cards are then sent to receive classified catalog entries and references. In rare instances it is necessary to

recall the book to determine the aspect of a subject it represents. This occurs usually only in assigning secondary subject entries. Generally the added subject entries can be established from the information at hand. If a text is classified as a treatise on chemistry and has a second subject entry for technical chemistry it is reasonable to conclude it can have an added classification number for a treatise on technical chemistry, or if *Misson's New Voyage to Italy* is classed in Italian travel of the 17th and 18th century and the added entry is for Europe—Description and travel, it seems safe to assume that D917 (17th century travel for Europe) is correct inasmuch as the author died early in the 1700's and the first edition was published in 1695.³

All cards come to the classifier with a work slip. Except for reclassified material this is one of a seven-part multiple form prepared by the Order department. This slip is then annotated to give the typist the information she needs for added entries. These are indicated on the lower left side of the work slip. All added subject entries appear as "parenthesis numbers" above the original call number when typed. They are traced on the shelf-list card (all tracings are on the shelf-list) in the lower left corner as (JK421), (HD999.o8), etc. The lower right portion of the work slip is reserved for indicating if any new subject reference cards are needed and a notation such as "(1)" means "refer to subject heading number one on the printed card and, using it, prepare a subject reference to the number indicated." As the recataloging has advanced, very often it is not a question of making a new heading but of adding to a heading already made. The classifier, using a separate 3x5 card, indicates this addition in a pencilled note. For example, the first book on *Radio broadcasting* re-

² A junior cataloger without Library School training does all descriptive cataloging for material not covered by LC entries. It may be subject to revision by the senior cataloger, if necessary.

³ Information on Library of Congress card.

quires an addition to the entry under *Radio*, so the pencilled card reads:

Radio

Broadcasting PN1991-1991.9

When the box of cards that has come to the classifier is completed the additions destined to go on classified catalog reference cards are placed in a group at the end of the box. When a card typist completes a box she not only will have typed each set of cards but she will have made all the *new* subject references required. A student typist then receives the group of additions and proceeds to work on them, retyping principal entries when she cannot place the additions in proper alphabetical position.

From September, 1948, to July, 1952, 44,676 titles⁴ were processed, including both new and reclassified materials. This includes 5002 titles for volumes outside the central unit. These latter receive fewer subject entries (usually only one) than do titles in the main collection, which means that any statistics on the proportion of classified catalog entries to the titles in the total collection are not wholly representative. That is, about 1.5 cards per title are prepared for the classified catalog, but this figure would be slightly higher if a separate count were kept for the Chenery collection. One person working approximately half time has been able to carry the work. The maintenance of a distinct division between professional and clerical activities in all the work of the department is, of course, to be expected. As in most libraries there have been periods where this distinction has been virtually nonexistent. With rare exception, however, the classifier has been able to devote the equivalent of half-time work to the classified catalog. This responsibility includes the assigning of the added subject

entries with their proper references and the checking of tracings for all other added entries. Decision on series added entries will be transferred to a union serials cataloger if this position is established. At present new and reclassified serials and series are distributed among the catalogers in accordance with their separate areas of responsibility.

It is not possible to isolate all the costs of establishing and maintaining the classified catalog as it has always been a part of the total project of reclassification. It is, however, possible to separate and estimate certain parts of its cost. The number of catalogers and clerical staff assigned to the recataloging program has varied, but the work on the classified catalog has been maintained by one classifier quite consistently on a half-time basis for the forty-six months from September, 1948, to July, 1952. An average of 971.2 titles per month have received classified cataloging on the half-time basis. This would, it is believed, compare favorably with the work of a subject cataloger, but it would not equal in quantity the cataloging possible for a dictionary subject catalog under similar conditions. If the fifty-six hours of clerical work required to carry the additions to the index are estimated at the maximum wage levels in effect at present, the monthly costs are \$41.60.⁵ If 971.2 titles are prepared per month, the unit cost is then \$0.042. This does not include the cost of new references that are made by the catalog card typists. This operation is not separated from their work but a figure of .05 per card has been established as typing costs for regular catalog cards. New reference cards require less typing time, therefore it seems possible that the actual cost of a new reference is the same as that of preparing an addition.

⁴ Excluding pamphlets that are selectively cataloged with no subject entries and are primarily for reserve room use.

⁵ That is, 75¢ per hour for typing and \$1.20 for revision.

The professional labor costs per title could be established for a similar situation by taking the prevailing salary scale for experienced personnel and balancing it against estimated output. It should be expected that the average number of titles classified in the first few months will, of necessity, be lower than the average over a long period of time when experience in the methods begins to take effect.

During the forty-six months period the whole project has had the equivalent of one cataloger full time for 165 months including all vacation allowances. The total project has included:—

- (1) Reclassification and recataloging of the Chenery Library collection (not yet completed)
- (2) Cataloging and classification (with no responsibility for card typing or preparation of materials in the branch unit) for the two colleges and one bureau collection.⁶
- (3) New library collection established for a small college with all technical services completed in the central unit.

For the purpose of estimating the total expenditures the full-time service of the classifier is included above as the other half of that position has included administrative responsibility for the reorganization program as well as certain responsibility for personnel and other activities for the central library. A total of 114,760 volumes have been processed in this period, averaging 695.5 volumes per person per month.

One of the expected economies of this type of catalog is the rapidity with which subject headings can be changed when a new term supersedes an older form. Less anticipated is the very real economy in number of cards needed. The dictionary subject catalog's use of overlapping terms results in multiple entries that can be avoided in a

classified catalog. For example, the material classified in PN4001-PN4321 very often has both *Oratory* and *Elocution* as subject headings on LC cards. In another field, Still's *Underground Railroad* has three subject headings assigned by the LC. 1. Underground railroad; 2. Slavery in the U.S.—Fugitive slaves and 3. Slavery in the U.S.—Anti-slavery movements. The book is classed in E450 which applies directly to subject headings number one and two. The third subject heading is covered adequately by the classified catalog reference to E441-453. Therefore for this volume one card only is needed in the classified catalog to represent three approaches. These are examples of the numerous headings that so overlap that the dictionary catalog user distinguishes very little value in their separation and that the classified catalog user quite happily finds in one place. The precision of the LC classification schedules allows the reverse of this situation to appear less frequently than would be the case with a broader classification system. That is, rarely is one LC number used for two subjects requiring two subject references that may result in confusing a reader coming from one of the references and finding what may seem to him irrelevant material.

With a consideration of the cost of a classified catalog should go some statement of its value to the user in comparison with a traditional subject catalog. No quality statistics are available for either type at present. Some definite observations may be made, however. Boston University's catalog has been in public use since its beginning. For a major part of the four year period students and faculty have consulted it without assistance. 1951 was the first year a freshman orientation program was offered and the same year a serious attempt was made to provide a readers' service desk

⁶ Three collections now having centralized processing joined the program after the two on which the figures in this article are based.

in the catalog area during peak periods of use. Encouraging results have, of course, been observed and both of these activities are now permanent parts of the library service program. But, it has been proved that undergraduates, graduates and faculty, with no library staff help are able to use the relative index and go from it to the classified catalog and locate material.

The Reference department is most enthusiastic in the results of its use of the catalog. Staff members have commented upon the extra help they receive from the subject references. The subdivisions alphabetically placed on the cards often serve to narrow their search to a specific number or may draw to their attention the very aspect that they need. The consistent use of the subdivision *general works* under every major subject area provides a sure guide to broad treatment suitable for the undergraduate writing a paper or for the specialist from another field who is intent on getting some basic material in a subject remote from his own activities.

Several minor experiments in arrangement of the catalog have been tried out. At first it was proposed to have selective subject representation in the Main catalog. The difficulty of arriving at an acceptable choice of this kind prevented development of the plan. Inverse chronological filing was used until the spring of 1951. It was abandoned as it seemed to cause confusion and served no readily apparent need.⁷ The filing is now alphabetical by main entry under each classification number. Guide cards are used extensively and contain both the class number and the subject term.

Mention was made earlier in this paper to

⁷ The shelf list, because of the use of a time number as a book number, provides a chronological survey of the major holdings in any field.

the method of treatment for representation in the classified catalog of material in collections of other colleges that may, for example, use the Decimal classification system. Two types of entry are possible. For a collection which in no probability will ever be reclassified, the main entry is in the form of a parenthesis LC number above the location symbol and Dewey call number. If for some reason it seems advisable to delay decision on possible reclassification (as, for example, the School of Nursing Library may wish to consider the new R schedule for adoption), the parenthesis number is again used above the location symbol but no Dewey call number is given. When cards for either type of material are sent to the classifier, if they are printed cards the suggested LC number is placed in proper position on the work slip. The classifier then verifies and checks it for needed references and decides if any added subject entries are to be used.

In general it seems fair to say that as the total project of reorganization has progressed it has been possible to set up this type of subject control without unduly higher costs in professional and clerical labor. How much further along the recataloging project would be had a dictionary subject catalog been set up cannot be estimated. The only comparison possible is the output per month of this project balanced against a similar recataloging program in a library with experienced personnel and approximately the same percentage of titles having LC copy available.

The really important question—Does this method of subject control offer sufficient advantage to the users to warrant its use?—can only be answered subjectively at present.

We believe it does.